Measurements (in mm.)—

	Male
Length of head	0·85
Width of head	0·91
Length of eye	0·22
Distance between eyes	0·68
Length of first antennal segment	0·28
Distance between the bases of antennae	0·45
Length of pronotum	0·79
Width of pronotum	0·79
Length of elytra	1·02
Width of elytra	0·45
Length of wing	0·34
Length of ultimate tergite	0·57
Width of ultimate tergite	1·25
Length of body (without forceps)	5·31
Length of forceps	1·48

Material.—Holotype, ♂, Anamalai Hills, Cinchona, 3500 ft., v. 1968, P.S. Nathan; genitalia mounted between two coverslips and penultimate sternite mounted on a card and both pinned with the specimen; deposited in the Zoological Survey of India, Calcutta.

Affinities.—The described species comes very close to *Chaetospania foliata* (Burr) from Ceylon but differs in having ultimate tergite transverse pygidium with a median deep notch posteriorly and forceps with branches depressed in basal half with a small, sharp tooth at the inner margin, a little before middle.

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REFERENCES

Burr, M., 1910. *The Fauna of British India, including Ceylon and Burma*, Dermaptera : 217, 10 pls.

Burr, M., 1911. Dermaptera, *Genera Insectorum*, **122** : 112, 9 pls.

Burr, M., 1911. Contribution to our knowledge of Indian Earwigs. *J. Asiat. Soc. Beng.* (N.S.), **7**, No. 11 : 771-800.

The Coleopterous Fauna of Stones at Staines, Middx. Part 2

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The first part of this paper (Muggleton 1968) gave a list of twenty-seven species of Coleoptera found under a group of stones at Staines, Middx. It also included a description of the habitat. This second part includes some additional species found since October 1968 and some earlier records which I had overlooked. There are also some additional notes on species previously recorded. Most of these records are the result of a more detailed study, than had been possible previously, in the months October to December. One correction to a previous record is included. Finally I have made an analysis of the species list with reference

to Dibb's (1948) bionomic classification of the British Coleoptera.

Additions to the 1968 list.

(Additional species are marked by an asterisk. Roman numerals indicate the months of occurrence of each species).

Family CARABIDAE

Nebria brevicollis Fab. Add xi, xii.

**Asaphidion flavipes* Linn. One specimen was found in the run of an ant's nest on 30.iv.67. The quick movements and form of this species give it an ant-like appearance. However, it does not appear in Walsh's (1954) list of myrmecophilous species.

Agonum mulleri Hb. A further specimen was found on 12.x.68.

Family HYDROPHILIDAE

Megasternum obscurum Mm. Add xii.

Family SILPHIDAE

**Choleva agilis* Ill. Occurred as single specimens at the end of 1968. It probably hibernates under the stones, x, xi, xii.

**Ptomophagus subvillosus* Goeze. A single specimen was found on 30.x.68. It has previously been found, nearby, in carrion.

Family STAPHYLINIDAE

Oxytelus rugosus Fab. Add xi, xii.

**Philonthus decorus* Grav. A single specimen was found on 26.v.67.

**Philonthus fimetarius* Grav. Found both in 1967 and 1968, especially frequent in May, iv, v, viii, x.

Ocypus olens Mu. Previously noted as no longer occurring. One specimen was found on 24.x.68 and this marks the reappearance of this species after two years absence. Add x.

**Quedius fuliginosus* Grav. One specimen was found on 4.xii.68.

**Xantholinus linearis* Ol. Two specimens were found in November 1968

Tachyporus hypnorum Fab. Add x.

Tachinus humeralis Gr. Add x, xi, xii.

**Tachinus subterraneus* Linn. A single specimen was found on 2.xii.68.

Family RHIZOPHAGIDAE

Rhizophagus parallelocollis Er. The record for *R. depressus* Fab. in the 1968 list should refer to this species.

**Rhizophagus dispar* Gyll. One specimen was found on 24.x.68, on the remains of a dead slug (*Arion* sp.).

Family CURCULIONIDAE

**Otiorrhynchus sulcatus* Fab. One specimen was found in the summer of 1961. This species occurs quite frequently on the surrounding vegetation.

Bionomic Classification.

In the following part of this paper I have attempted to use Dibb's (1948) bionomic classification of British beetles to give a more detailed picture of the type of habitat provided by the stones. By finding which habitat-groups are best represented in the habitat we can see more clearly the factors which have contributed to the existence of the present fauna. Such analysis could be used for comparisons between habitats,

providing it is borne in mind that some of the groups include a broader range of surroundings than others and that all the species in one habitat-group do not necessarily occupy the same position in the food chain.

For Table 1, I have followed Dibb's classification. In those examples where the species are not dealt with by Dibb, I have used my own observations and the habitat notes in Fowler (1887-1891) to classify the species as follows:—

Bembidion lampros Hb., ripicole. limicole; *B. quadrimaculatum* Linn, ripicole, limicole, arenicole; *Philonthus cognatus* S., detriticole, muscicole; *P. decorus*, lapidicole, detriticole, muscicole; *P. fimetarius*, detriticole; *Ocypus globulifer* Fc., lapidicole, muscicole; *Quedius fuliginosus*, detriticole.

In Table 1 there are nineteen 'regular' species and eighteen 'casual' species.

TABLE 1.—The percentage of the total, regular and casual species belonging to each habitat-group.

Habitat-group*	Total	Regular	Casual
Ripicole (On banks of rivers, etc.)	21·3	15·7	27·2
Limicole (On or in mud)	13·5	10·5	22·2
Arenicole (On or in sand)	5·4	5·2	5·5
Lapidicole (Under stones)	32·4	52·0	11·0
Truncicole (On or in tree trunks or stems)	10·8	10·5	11·0
Herbicole (On or in herbaecous plants)	5·4	5·2	5·5
Muscicole (In moss)	24·0	31·4	22·2
Fungicole (On or in fungi)	10·8	10·5	11·0
Detriticole (In plant refuse)	51·3	47·3	55·0
Cadavericole (On or in dead animals)	16·2	10·5	11·0
Stercoricole (On or in excrement)	24·3	26·3	22·2
Domicole (In human habitations)	2·7	5·2	—
Nidicole (In nests)	2·7	—	5·5

*An explanation of each term is given in parentheses.

The table shows that the best represented habitat-groups are the Detriticoles and the Lapidicoles. It can be assumed that the lapidicoles are species which seek the shelter of the stones as a protection against dessication and predators. On this basis it would not be valid to group all the regular species as lapidicoles. Animal and plant debris is plentiful under the stones and must be the primary attraction for the detriticoles. The high percentage of detriticoles amongst the casual species can be explained by the presence, nearby, of large quantities of garden refuse. Thirty-one per cent. of the regular species are muscicoles and this could be a reflection of the dampness of the habitat. In 1968, for example, there was a large increase in the amount of the moss *Brachythecium rutabulum* (Hedw.) B. & S., both on top of and around the stones. The ripicoles and limicoles form a large percentage of the casual species, and this is probably a result of the proximity of the river. As might be expected the remaining habitat-groups are poorly represented in this habitat. In other localities (e.g. in open country) one would expect to find a larger percentage of cadavericoles, stercoricoles, nidicoles and alticoles contributing to the coleopterous fauna of stones.

In conclusion, I would suggest that the factors most affecting the coleopterous fauna of this habitat are, the physical presence of the stones themselves, the large amount of detritus available, the dampness of the surroundings and the nearby river.

Summary.

A total of thirty-seven species have now been recorded from this habitat. Of these nineteen may be regarded as regular and eighteen (including two formerly regular species that are no longer found) as casual species. It is shown that the majority of the species belong to two habitat-groups, the lapidicoles and the detriticoles.

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REFERENCES

Dibb, J. R. 1948. *Field Book of Beetles.* A. Brown & Sons, Hull.

Fowler, W. W. 1887-1891. *The Coleoptera of the British Isles.* London.

Muggleton, J. 1968. The Coleopterous Fauna of Stones at Staines, Middx. *Ent. Rec.*, **80** : 287-291.

Walsh, G. B. in, Walsh, G. B. and Dibb, J. R. Eds. 1954. *A Coleopterist's Handbook.* The Amateur Entomologists' Society, London.

Cercyon laminatus Sharp (Col. Hydrophilidae) New to Britain; with Corrections to our List of Species, and Further Notes

By A. A. Allen, B.Sc., A.R.C.S.

Cercyon laminatus Sharp (1873) is a very distinct species which cannot be confused with any other occurring in Britain. It is one of the larger members of the genus, and except for its size and colour (the former a little variable) has, as its author remarks, quite the appearance of a species allied to *litoralis* Gyll. or *depressus* Steph., on account of its relatively elongate, flattish, loosely-built form. The shape is oblong-oval with elytra widest at or rather behind middle, and sides of pronotum rounded before the obtuse hind angles so as to form an angle with sides of elytral base in dorsolateral view. The coloration is distinctive: head and most of underside black, upperside pitchy-yellow-brown with pronotum rather paler at sides; apex and margins of elytra (and often less clearly, base and sutural region), metasternal lamina, antennae except club, palpi, and legs, a lighter yellowish or straw-colour. Also highly characteristic are the very large eyes (not noticed by Sharp in his description), very narrow scutellum, unusually elongate antennal club, and very narrow, keel-like, almost blade-like mesosternal lamina (whence the name of the species). These features together render the insect quite unmistakable, and somewhat isolated within the genus. The puncturation is fairly fine and uniform, the striae are impressed behind, and the limbs long.